

We claim:-

- 5 1. A thermally polymerizable mixture consisting of a multifunctional macromonomer comprising one or more free-radically polymerizable groups and a polymerization initiator.
- 10 2. The thermally polymerizable mixture according to claim 1 wherein said free-radically polymerizable groups are acrylate, methacrylate, maleate, vinyl ether, vinyl and/or allyl groups.
3. The thermally polymerizable mixture according to claim 1 or 2 wherefor the molar mass  $M_w$  of said multifunctional macromonomer is in the range from 300 to 30 000.
- 15 4. The thermally polymerizable mixture according to claims 1 to 3 wherefor the molar mass  $M_w$  of said multifunctional macromonomer is in the range from 500 to 20 000.
- 20 5. The thermally polymerizable mixture according to claims 1 to 4 wherefor said multifunctional macromonomer is obtainable by co-reacting
  - a) 0.5-2.0 equivalents of a 2- to 6-hydric alkoxyated alcohol with
  - b) 0 to 1 equivalent of a 2- to 4-basic  $C_3$  to  $C_{16}$  carboxylic acid and/or anhydride and
  - 25 c) 0.1 to 1.5 equivalents of acrylic acid and/or methacrylic acid
  - d) 0 to 1 equivalent of dioland then reacting the thus obtainable reaction product with at least one epoxy compound.
- 30 6. The thermally polymerizable mixture according to claim 5 wherefor said multifunctional macromonomer is obtainable by subsequently reacting the product of the reaction of an epoxy compound with said reaction product with a polyisocyanate in the presence or absence of a chain extender to form a
- 35 macromonomer comprising acrylate and polyurethane groups.
- 40 7. The thermally polymerizable mixture according to claims 1 to 6 wherein said polymerization initiator is at least one selected from the group consisting of peroxides, hydroperoxides, peroxydisulfates, percarbonates, peroxyesters, hydrogen peroxide and azo compounds.
8. The thermally polymerizable mixture according to claims 1 to 7 comprising 0.05% to 15% by weight solids of a polymerization initiator.

9. A use of a thermally polymerizable mixture consisting of a multifunctional macromonomer comprising one or more free-radically polymerizable double bonds and a polymerization initiator as a binder for a substrate.
- 5 10. The use according to claim 9 wherein said thermally polymerizable mixture is used as a binder for glass fiber, rock wool, natural fiber, manufactured fiber and for core sand binding.